

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

HAEBERLI

Application No.: 09/684,595

Filed: November 5, 2000

For: Previewing a Framed Image
Print

Examiner: Yang, Ryan R.

Art Unit: 2672

**RENEWED PETITION
UNDER 37 CFR1.137(b)**

In response to Decision on Petition
mailed 11/29/2006

Box DAC
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:


Applicant respectfully addresses the two requirements in the Decision on Petition
mailed on 11/29/2006 as following:

(1) A response to the non-final action of July 28, 2005 is attached; and

(3) Applicant makes the following formal statement:

"The entire delay in filing the required reply from the due date for the reply
until the filing of a grantable petition pursuant to 37 CFR1.137(b) was unintentional."

Respectfully submitted,



Xin Wen
Reg. No. 53,758

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RESPONSE TO OFFICE ACTION

Mailed 7/28/2005

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313

Sirs:

The Office Action mailed July 28, 2005 rejected claims 1-9, 11-15, 17-19 and 21 under 35 U.S.C. 103(a) as being unpatentable over Oles (6,047,130), Kato (5,369,736) and further in view Dawson et al. (5,179,638). Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (6,047,130) in view of Dawson, Kato and Kurashige (5,282,262). Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Oberg (5,870,771) in view of Oles, Kato and Dawson.

Applicants respectfully submit amended claims and arguments. Applicants believe that all the issues in the office action have been addressed and all claims are in condition for allowance.

PENDING CLAIMS

1. (Currently Amended) A method of generating a frame prototype image showing a picture image framed within a frame, the method comprising:

providing a frame image showing the frame in a perspective view, the frame image having a picture portion corresponding to the portion of the frame used to view a picture mounted in the frame;

texture mapping the picture image to the picture portion of the frame image in order to generate the frame prototype image; and

~~multiplying~~ modifying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image.

2. (Original) The method of claim 1, further comprising identifying a picture portion of the frame image.

3. (Original) The method of claim 2, wherein identifying the picture portion of the frame image includes providing a mat identifying the picture portion of the frame image.

4. (Original) The method of claim 3, wherein the mat includes a plurality of pixels, each pixel having a pixel value.

5. (Original) The method of claim 4, wherein identifying the picture portion of the frame image includes setting each pixel in the mat that corresponds to the picture portion of the frame image to a first pixel value.

6. (Original) The method of claim 2, wherein identifying the picture portion of the frame image includes identifying the outer perimeter of the picture portion of the frame image.

7. (Original) The method of claim 1, wherein the picture portion of the frame image has a quadrilateral shape and the method further includes identifying the picture portion of the frame image including identifying the four corners of the picture portion.

8. (Original) The method of claim 1, further comprising displaying the frame prototype image.

9. (Previously Amended) The method of claim 1, mapping the picture image to the picture portion of the frame image includes texture mapping the picture image to the picture portion of the frame image.

10. (Original) The method of claim 1, wherein the mapping the picture image to the picture portion of the frame image includes mapping the picture image to the picture portion of the frame image using the illumination of the picture portion of the frame image.

11. (Original) The method of claim 1, wherein the frame image is captured using a digital camera.

12. (Currently Amended) A computer program product tangibly embodied in a computer-readable medium, for generating a frame prototype image showing a picture image framed within a frame, comprising instructions operable to cause a computer to:

- receive the picture image;
- store a frame image showing the frame in a perspective view and a mat identifying the picture portion of the frame image;
- texture map the picture image to the picture portion of the frame image in order to generate the frame prototype image; and
- ~~multiply~~ modify a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image.

13. (Original) The computer program product of claim 12 further comprising instructions operable to cause the computer to generate the map.

14. (Original) The computer program product of claim 13 further comprising instructions operable to cause the computer to generate the map by identifying the picture portion of the frame image.

15. (Original) The computer program product of claim 12 further comprising instructions operable to cause the computer to identify the picture portion of the frame image by identifying the outer perimeter of the picture portion of the frame image.

16. (Currently Amended) A system for generating a frame prototype image showing a picture image framed within a frame, the system comprising:

- a client computer in communication with a computer network;
 - a server, in communication with a computer network, having server software embodied in a computer-readable medium, the server software comprising instructions operable to cause the server to:
 - receive the picture image from the client computer;
 - store a frame image showing the frame in a perspective view and a mat identifying the picture portion of the frame image; and
 - texture map the picture image to the picture portion of the frame image in order to generate the frame prototype image; and
 - multiply a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image,
- wherein the client computer includes client software embodied in a computer-readable medium, the client software comprising instructions operable to cause the client computer to upload the picture image to the server.

17. (Currently Amended) A method of generating a visual representation of an image based product, the method comprising:

- providing an image to be included in the image based product;
- providing a perspective image showing the image based product in a perspective view, the perspective image having a picture portion corresponding to the portion of the image based product used to view a picture mounted on the image based product; and
- texture mapping the image to the picture portion of the perspective image in order to generate the perspective prototype image; and
- multiply ~~modifying~~ a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image.

18. (Original) The method of claim 17 wherein the image based product is a framed picture.

19. (Original) The method of claim 17 wherein the image based product is a photocard.

20. (Original) The method of claim 17 wherein the image based product is a photo greeting card.

21. (Original) The method of claim 20 wherein the method includes displaying the perspective image in an environment that provides a context for viewing the image based product.

The Section 103 Rejections

Claim 1 recites the following invention:

A method of generating a frame prototype image showing a picture image framed within a frame, the method comprising:

providing a frame image showing the frame in a perspective view, the frame image having a picture portion corresponding to the portion of the frame used to view a picture mounted in the frame;

texture mapping the picture image to the picture portion of the frame image in order to generate the frame prototype image; and

multiplying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image.

The Office Action noted that:

As per claim 1, Oles discloses a method of generating a frame prototype image showing a picture image framed within a frame, the method comprising:

providing a frame image showing the frame in a perspective view, the frame image having a picture portion corresponding to the portion of the frame used to view a picture mounted in the frame (Figure 4 26); and

mapping the picture image to the picture portion. of the frame image in order to generate the frame prototype image (Figure 3 24 to Figure 4 24).

Oles discloses a method of generating a frame prototype image. It is noted that Oles does not explicitly disclose "modifying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image", however, this is known in the art as taught by Kato et al. hereinafter Kato. Kato discloses the frame prototype image is generated from the original picture (the design simulation is carried out by photographing or taking the picture of the interior of the automobile and then modifying the texture of a seat part in the photographed picture image, column 2, line 43-46).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kato into Oles because Oles discloses a method of generating a frame prototype image and Kato discloses a frame prototype image can be modified in order to assist design simulation.

Oles and Kato disclose a method of generating a frame prototype image. It is noted that Oles and Kato do not explicitly disclose using texture mapping the picture image of the frame image to generate the frame prototype image, however, this is known in the art as taught by Dawson et al., hereinafter Dawson. Dawson discloses a method of providing a texture mapped perspective view for digital map systems (column 2, line 61-62, since the digital map is a prototype image).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Dawson into Oles and Kato because Oles and Kato disclose a method of generating a prototype image and Dawson discloses the image texture can be texture mapped in perspective in order to enhance visual reality (column 1, line 50).

The instant application discloses "multiplying the texture value by the original value of the pixel..." (Page 7, Lines 3-5) and also "multiply texture value by pixel value from picture area" (Figure 4, Step 406). The instant application displays the original image content in the display image frame. In other words, the image content in the original image is preserved in the final frame image.

Kato relates to a "texture mapping method that projects a specified texture picture onto the surface of an object in another specified picture. Three-dimensional data on the surface shape of the object to be projected is not known previously. The three-dimensional data on the surface shape of the object is estimated on the basis of the data in the objective picture to attain the texture mapping." (Abstract). Col. 2, lines 43-46 of Kato notes that "the design simulation is carried out by photographing or taking the picture of the interior of the automobile and then modifying the texture of a seat part in the photographed picture image."

Kato depicts "modifying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image" (Column 2, lines 43-46) as follows:

In Fig. 6A, an original 3D picture is shown to include a flower pattern on a car seat.

In Fig. 6B, a texture (a grid pattern) is selected. The texture is characterized by a shape model (see Fig. 4, step 402).

In Fig. 6C, the original pixel values (i.e. the flower pattern) are removed and replaced by the texture value (i.e. the grid pattern). The original pixel values (i.e. the flower pattern) are lost after the texture values are applied to the car seat. If the texture pattern is found not appealing, the "shape model" for the texture value will be "modified" (Fig. 4, steps 402-406).

In view of the above argument, Kato does not teach or teaches the opposite to the limitation "multiplying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image" in the amended claim 1. Similarly, neither Dawson nor Oles discloses this limitation of claim 1. Dawson also does not disclose a frame prototype. Since at least one element is missing, Oles, Kato, Dawson, singly or in combination, cannot render claim 1 obvious.

Further, Oles does not show the claimed perspective view. The Office Action asserted that, since Oles' "(and the size of the resulting) as well as move and position the combined image" are additional conditions of perspective view and since the two variables (size and position) are the only variable allowed to change in a head-on view image, Oles implies a perspective image means more than a head-on view and includes angle view.

Applicants disagree with the "implied" information provided using hindsight. Column 2 line 1 of Oles states "The present invention overcomes these deficiencies by providing a method and apparatus that allows a customer to visually determine the appropriate size of a portrait photograph and matching picture frame by displaying upon a portrait display viewer a perspective view of a combined video image of the photograph and the matching frame within a simulated room image." Further, Column 5 line 31--35: "The present invention as depicted in FIG. 5 allows the customer or operator to change the perspective of the video image (**and the size of the resulting portrait**) as well as move and position the combined image within the simulated room setting image." This is further supported by the fact that all Oles figures show a frontal view of the picture. The fact that the monitor showing the simulated picture(s) is shown in a 3D perspective view further supports the contention that the "perspective view" in Oles is not the perspective view as claimed.

Oles, Kato and Dawson fail to show at least the multiplying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image. The office action points to Oles' Fig. 4 26 to Fig. 5 26 as showing the modification of the texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image. However, the description of Fig. 4 fails to show this aspect, among others. As noted in Oles:

Once satisfied with the combined image and referring now to FIG. 4, the customer can select a particular simulated room setting image 28 for displaying the combined image. The customer/operator scrolls through a series of simulated room setting images such as dens, living rooms, libraries, or bedrooms to find an image suitable for displaying the combined image. Like the picture frame images, the present invention includes previously stored images of simulated room settings for later retrieval. After selecting the simulated room setting image 28, the present invention combines the combined picture frame image 26 and video image 24 with the selected simulated room setting image as depicted in FIG. 4 to produce a simulated perspective room image. As previously stated, the present invention initially transposes the video image as a 5".times.7" image; and when combined with the room image, the video image appears in a perspective view of the room image to produce a simulated perspective room image. In other words, the combined video and picture frame image appears to the customer on video portrait viewer 20 in a

perspective view as 5".times.7" picture would appear in the selected room setting. Upon seeing the perspective view, the customer can immediately determine whether the size of the portrait is correct, whether the picture frame matches the portrait, and whether the combined portrait and picture frame will match the selected room. The present invention as depicted in FIG. 5 allows the customer or operator to change the perspective of the video image (and the size of the resulting portrait) as well as move and position the combined image within the simulated room setting image. If for some reason, the customer does not want a picture frame, the present invention will work equally as well in displaying a video image of a portrait in a simulated perspective room image without a picture frame bordering the video image. Additionally, the present invention allows the customer to view one or more video images, with or without the picture frame image combination, in combination with the simulated room setting image so that the customer can see a perspective view of multiple portraits in a simulated room.

The above section in Oles compels the conclusion that Oles does not discuss the multiplying a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image, among others. Kato and Dawson are similarly lacking.

Additionally, the Office Action noted that "Since Oles specifically points out '(and the size of the resulting) as well as move and position the combined image' are additional conditions of perspective view and since the two variables (size and position) are the only variable allowed to change in a head-on view image, Oles implies a perspective image means more than a head-on view. Therefore, a perspective view includes angle view."

Applicants respectfully points out that the "perspective" term in Oles relates to the "size of the resulting portrait". In contrast, in the present invention, page 6 provides a discussion of the "perspective view":

A "perspective frame image" is an image that shows an in-perspective view of a frame. In other words, the frame in such a perspective frame image is not shown in a head-on view. For example, a frame can be arranged in a typical scene in which the frame might be displayed (e.g., on a table) and then a digital camera can be used to capture a perspective image of the frame as it appears in the scene. Also, a white piece of paper (or other suitable material) can be mounted in the frame where an image print would be displayed. As a result, the perspective frame image will include a white region located where an image print would be visible in the frame (also referred to here as the "picture area"). An example of such a perspective frame image 300 having a picture area 302 is shown in FIG. 3A.

As discussed above, Oles only shows a head-on view and does not show the perspective view. Kato does not mention perspective. Dawson is a hardware reference and there is no suggestion in the software system of Oles to incorporate the texture as hardware.

Based on the foregoing, Applicant respectfully traverses the Section 103(a) rejection. Applicant notes that the present rejection does not establish *prima facie* obviousness under 35 U.S.C. § 103 and M.P.E.P. §§ 2142-2143. The Examiner bears the initial burden to establish and support *prima facie* obviousness. *In re Rinehart*, 189 U.S.P.Q. 143 (CCPA 1976). To establish *prima facie* obviousness, three basic criteria must be met. M.P.E.P. § 2142. First, the Examiner must show some suggestion or motivation, either in the cited references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference so as to produce the claimed invention. M.P.E.P. § 2143.01; *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Secondly, the Examiner must establish that there is a reasonable expectation of success for the modification. M.P.E.P. § 2142. Thirdly, the Examiner must establish that the prior art references teach or suggest all the claim limitations. M.P.E.P. § 2143.03; *In re Royka*, 180 U.S.P.Q. 580 (CCPA 1974). The teachings, suggestions, and reasonable expectations of success must be found in the prior art, rather than in Applicant's disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (CAFC 1991). Applicant respectfully submits that a *prima facie* case of obviousness has not been met because the Examiner's rejection fails on all of the above requirements.

In sum, Kato, Dawson, and Oles do not teach at least one limitation in the amended claim 1. Oles, Kato, Dawson, singly or in combination, cannot render claim 1 obvious. Furthermore, regarding claim 10, the Office Action did not establish that there is a reasonable expectation of success for the modification. M.P.E.P. § 2142. Neither Oles, Kato Dawson, nor Kurashige shows at least "the mapping the picture image to the picture portion of the frame image includes mapping the picture image to the picture portion of the frame image using the illumination of the picture portion of the frame image" in claim 10. Withdrawal of the Section 103 rejection on claim 1 and its dependent claims 2-11 is requested.

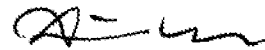
Claims 12 and 17 have been rejected similar to claim 1. The amended claim 12 includes the limitation "multiply a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image". The amended claim 17 includes the limitation "multiply a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image." Since neither Kato nor Dawson nor Oles teaches at least the above limitation in the amended claims 12 and 17, Oles, Kato, Dawson, singly or in combination, cannot render claim 12 and 17 obvious. Withdrawal of the Section 103 rejection on claims 12 and 17 and their respective dependent claims 13-15 and 18-21 is respectfully requested.

Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Oberg (5,870,771) in view of Oles, Kato and Dawson. The amended claim 16 includes the limitation "multiply a texture value at a pixel by the original pixel value of the picture image to generate the frame prototype image". Neither of the cited references teaches this limitation. The Office Action also did not establish that there is a reasonable expectation of success for the modification. M.P.E.P. § 2142. Moreover, the prior art references fail to teach or suggest all the claim limitations. Since at least one limitation is missing in Oles, Kato, Dawson, and Oberg, Oles, Kato, Dawson, and Oberg singly or in combination, cannot render claim 16 obvious. Withdrawal of the Section 103 rejection on claim 16 is respectfully requested.

CONCLUSION

Applicants respectfully submit that all claims are in condition for allowance. Withdrawal of the rejection is respectfully requested. If for any reason the Examiner believes that a telephone conference would in any way expedite prosecution of the subject application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,



Xin Wen

Reg. 53,758